# Version Control System (VCS), GIT Spring AU 2021

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Git repo: https://github.com/ajaysr047/gitAssignment

1. Status after and before staging the "Dummy.java" file

#### 2. Initial commit to the local repo

```
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git commit -m "Initial commit"
[master (root-commit) 9a465c5] Initial commit
1 file changed, 7 insertions(+)
create mode 100644 Dummy.java
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$
```

# 3. Pushing to the remote repo's master branch

```
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git push origin master
Username for 'https://github.com': ajaysr047
Password for 'https://ajaysr047@github.com':
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 312 bytes | 312.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/ajaysr047/gitAssignment
* [new branch] master -> master
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$
```

#### 4. Git diff

```
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git diff
diff --git a/Dummy.java b/Dummy.java
index 4e1972f..3734761 100644
--- a/Dummy.java
+++ b/Dummy.java
@@ -3,5 +3,6 @@ public class Dummy
    public static void main(String args[])
    {
        System.out.println("Dummy Java Class!");
        System.out.println("Print to highlight git diff");
    }
}
\ No newline at end of file
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ \[
\]
```

#### 5. Un-staging a staged file

```
Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git status
On branch master
Untracked files:
 (use "git add <file>..." to include in what will be committed)
nothing added to commit but untracked files present (use "git add" to track)
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git add toRemove.txt
.
ijay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git status
On branch master
Changes to be committed:
 (use "git restore --staged <file>..." to unstage)
    new file: toRemove.txt
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git rm --cached toRemove.txt
m 'toRemove.txt'
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git status
On branch master
Untracked files:
 (use "git add <file>..." to include in what will be committed)
nothing added to commit but untracked files present (use "git add" to t<u>r</u>ack)
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$
```

# 6. Removing a committed file using git rm

```
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git add toRemove.txt
ajay@ajay-Predator-PH315-51:r/Documents/SpringAU/dayOne/gitAssignment$ git commit -m "adding toRemove.txt"
[master ea28404] adding toRemove.txt
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 toRemove.txt
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git status
On branch master
nothing to commit, working tree clean
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git rm toRemove.txt
rm 'toRemove.txt'
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git status
On branch master
Changes to be committed:
(use "git restore --staged <file>..." to unstage)
deleted: toRemove.txt
```

#### 7. Commit after rm and git log

```
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git commit -m "after rm"
[master 2104e71] after rm
1 file changed, 0 insertions(+), 0 deletions(-)
delete mode 100644 toRemove.txt
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git log
     t 2104e7188230692d8f8b796f4d2c84ed345e810e (HEAD -> master)
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:24:26 2021 +0530
   after rm
commit ea28404e14f914a1708ee8ea9246ae22af83b6d4
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:21:01 2021 +0530
   adding toRemove.txt
commit 8e620aeba64c982f39d10fd033038e17f092b669
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:14:58 2021 +0530
   second commit
commit 9a465c54697c80ef305d7f3210411aebc8b1f53e (origin/master)
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 20:58:37 2021 +0530
   Initial commit
ijay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$
```

#### 8. Git mv (Rename committed file)

```
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git add dummyName.txt
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git status

On branch master

Changes to be committed:
   (use "git restore --staged <file>..." to unstage)
    new file: dummyName.txt

ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git commit -m "add dummyName.txt"

[master 2640479] add dummyName.txt
   1 file changed, 0 insertions(+), 0 deletions(-)
   create mode 100644 dummyName.txt
   ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git status

On branch master

nothing to commit, working tree clean
   ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git mv dummyName.txt newName.txt
   ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git status

On branch master

Changes to be committed:
   (use "git restore --staged <file>..." to unstage)
        renamed: dummyName.txt -> newName.txt

ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git commit -m "renamed dummyName.txt"

[master 1e731a] renamed dummyName.txt

ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git status

On branch master

nothing to commit, working tree clean

On branch master

nothing to commit, working tree clean
```

### 9. Git tag

Added two version tags, the commits can be reviewed with their respective tags

#### 10. Adding assignment to assignment repo

```
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/AssignmentCitRepo/SAU-2021-Jan-Batch-Hyderabad$ git status
On branch main
Your branch is up to date with 'origin/main'.

Untracked files:

(use "git add efile>..." to include in what will be committed)

git-afternoon/

nothing added to commit but untracked files present (use "git add" to track)

ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/AssignmentCitRepo/SAU-2021-Jan-Batch-Hyderabad$ git add git-afternoon/
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/AssignmentCitRepo/SAU-2021-Jan-Batch-Hyderabad$ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:

(use "git restore --staged «file»..." to unstage)

new file: git-afternoon/Git-Afternoon-Assignment.pdf

ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/AssignmentGitRepo/SAU-2021-Jan-Batch-Hyderabad$ git commit -m "Git-assignment initial commit"

[main da27626] Git-assignment initial commit
1 file changed, 0 insertions(+), 0 deletions(-)

create mode 100644 git-afternoon/Git-Afternoon-Assignment.pdf
```

#### 11. Pushing to remote repo "main"

```
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/AssignmentGitRepo/SAU-2021-Jan-Batch-Hyderabad$ git push origin main
Username for 'https://github.com': ajaysr047
Password for 'https://ajaysr047@github.com':
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 12 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 576.89 KiB | 9.30 MiB/s, done.
Total 4 (delta 0), reused 0 (delta 0)
To https://github.com/ajaysr047/SAU-2021-Jan-Batch-Hyderabad.git
3858cd6..da27626 main -> main
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/AssignmentGitRepo/SAU-2021-Jan-Batch-Hyderabad$
```

# 12. Creating a new branch (Local repo) and checkout

```
-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git branch
-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git status
ocuments/SpringAU/dayOne/gitAssignment$ git log
.7c7d5cd1a8d2ae09 (HEAD -> forResetDemo, tag: v2.0.0, origin/master, master)
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:39:29 2021 +0530
     version 2
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:31:47 2021 +0530
     renamed dummyName.txt
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:31:07 2021 +0530
     add dummyName.txt
  ommit 2104e7188230692d8f8b796f4d2c84ed345e810e
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:24:26 2021 +0530
   mmit ea28404e14f914a1708ee8ea9246ae22af83b6d4
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:21:01 2021 +0530
    adding toRemove.txt
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:14:58 2021 +0530
     second commit
  ommit 9a465c54697c80ef305d7f3210411aebc8b1f53e
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 20:58:37 2021 +0530
   Initial commit
```

#### 13. Pushing new branch to the remote repo

```
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git push origin master
Username for 'https://github.com': ajaysr047
Password for 'https://ajaysr047@github.com':
Everything up-to-date
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git push origin master forResetDemo
Username for 'https://github.com': ajaysr047
Password for 'https://github.com': ajaysr047
Password for 'https://ajaysr047@github.com':
Total 0 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'forResetDemo' on GitHub by visiting:
remote: https://github.com/ajaysr047/gitAssignment/pull/new/forResetDemo
remote:
To https://github.com/ajaysr047/gitAssignment
* [new branch] forResetDemo -> forResetDemo
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$
```

#### 14. Performing a reset for locally staged files using "git reset"

```
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git status

On branch forResetDemo
Changes to be committed:
    (use "git restore --staged <file>..." to unstage)
        new file: dummyFile1.txt
        new file: dummyFile2.txt

ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git reset
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git status

On branch forResetDemo
Untracked files:
    (use "git add <file>..." to include in what will be committed)
    dummyFile1.txt
    dummyFile2.txt

nothing added to commit but untracked files present (use "git add" to track)
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$
```

# 15. Performing a dummy commit in "forResetDemo" branch

```
ne/gitAssignment$ git commit -m "Dummy commit to reset
 []ayma]ay-Predator-PH313-31:-/Documents/SpringAU/d
[ForResetDemo 974964e] Dummy commit to reset later
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 dummyFile1.txt
create mode 100644 dummyFile2.txt
                                                       uments/SpringAU/dayOne/gitAssignment$ git log
22b271e74290eb (HEAD -> forResetDemo)
Author: ajay <ajaysraja047@gmail.com>
Date: Thu Jan 7 22:35:22 2021 +0530
      Dummy commit to reset later
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:39:29 2021 +0530
      version 2
                          3a0c81c5e38f7ac6cbb1f0d6ee68658 (tag: v1.0.0)
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:31:47 2021 +0530
      renamed dummyName.txt
  ommit 2640479f1e0cbaee757739f517db0f121b2c3d9f
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:31:07 2021 +0530
     add dummyName.txt
   ommit 2104e7188230692d8f8b796f4d2c84ed345e810e
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:24:26 2021 +0530
     after rm
commit ea28404e14f914a1708ee8ea9246ae22af83b6d4
Author: ajay <ajaysr647@gmail.com>
Date: Wed Jan 6 21:21:01 2021 +0530
     adding toRemove.txt
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 21:14:58 2021 +0530
      second commit
  ommit 9a465c54697c80ef305d7f3210411aebc8b1f53e
Author: ajay <ajaysr047@gmail.com>
Date: Wed Jan 6 20:58:37 2021 +0530
   Initial commit
```

### 16. Performing a reset on the commit to match the branch with master

```
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git reset f8aee51218ed20e3b8324c0a7c7d5cd1a8d2ae09
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git log
commit f8aee51218ed20e3b8324c0a7c7d5cd1a8d2ae09 (HEAD -> forResetDeno, tag: v2.0.0, origin/master, origin/forResetDene, master)
Author: ajay <ajaysr047@gmall.com>
Date: Wed Jan 6 21:39:29 2021 +0530

version 2

commit 1e7313c5c3a0c81c5e38f7ac6cbb1f0d6ee68c58 (tag: v1.0.0)
Author: ajay <ajaysr047@gmall.com>
Date: Wed Jan 6 21:31:47 2021 +0530

renamed dummyName.txt

commit 2640479f1e0cbaee757739f517db0f121b2c3d9f
Author: ajay <ajaysr047@gmall.com>
Date: Wed Jan 6 21:31:07 2021 +0530

add dummyName.txt

commit 2104e7188230692d0f8b796f4d2c84ed345e810e
Author: ajay <ajaysr047@gmall.com>
Date: Wed Jan 6 21:24:26 2021 +0530

after rn

commit ea28404e14f914a1708ee8ea9246ae22af83b6d4
Author: ajay <ajaysr047@gmall.com>
Date: Wed Jan 6 21:21:01 2021 +0530

adding toRemove.txt
```

# Adding dummy file in "forResetDemo" branch and pushing the branch to the remote repo

```
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ touch toMergeWithMaster.txt
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git add toMergeWithMaster.txt
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git commit
Aborting commit due to empty commit message.
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git commit -m "Before merge"
[forResetDemo bef9cae] Before merge
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 toMergeWithMaster.txt
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$ git push origin forResetDemo
Username for 'https://github.com': ajaysr047
Password for 'https://github.com': ajaysr047
Password for 'https://ajaysr047@github.com':
Enumerating objects: 100% (3/3), done.
Counting objects: 100% (3/3), done.
Delta compression using up to 12 threads
Compression using up to 12 threads
Compression using up to 12 threads
Compression objects: 100% (2/2), 241 bytes | 241.00 KiB/s, done.
Total 2 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/ajaysr047/gitAssignment
f8aee51.bef9cae forResetDemo -> forResetDemo
ajay@ajay-Predator-PH315-51:-/Documents/SpringAU/dayOne/gitAssignment$
```

#### 18. Switching to the master and performing a merge

```
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git checkout master

Switched to branch 'master'
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git merge forResetDemo

Updating fBaee51..bef9cae

Fast-forward

toMergeWithMaster.txt | 0

1 file changed, 0 insertions(+), 0 deletions(-)

create mode 100644 toMergeWithMaster.txt
```

### 19. Committing the merge to master and pushing it to the remote repo

```
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git add dummyFile*
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git commit
Aborting commit due to empty commit message.
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git commit -m "after merge"
[master 771b44c] after merge
2 files changed, 0 insertions(+), 0 deletions(-)
create mode 100644 dummyFile1.txt
create mode 100644 dummyFile2.txt
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$ git push origin master
Username for 'https://ajithub.com': ajaysr047
Password for 'https://ajaysr047@github.com':
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), 240 bytes | 240.00 KiB/s, done.
Writing objects: 100% (2/2), 240 bytes | 240.00 KiB/s, done.
Total 2 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/ajaysr047/gitAssignment
f8aee51.771b44c master -> master
ajay@ajay-Predator-PH315-51:~/Documents/SpringAU/dayOne/gitAssignment$
```